

features, goals, and desires of a mobile communication based financial transaction system in a satisfactory manner.

[0026] Therefore, there is a need for a comprehensive solution that allows consumers using mobile devices to consolidate their bills and other payment obligations, pay such bills and other obligations at anytime and anywhere, using any selectable available funds, to merchants for goods or services, or to anyone or any other designated entity, with knowledge of the amounts to be paid and the funds available balances. And of course, all of this must be convenient, secure, and rapid.

[0027] As will be described and explained in detail below, the present inventors have constructed various systems and methods for completing financial transactions in a mobile environment that meet these and other requirements for an efficient, effective, robust, secure and convenient solution.

SUMMARY OF THE INVENTION

[0028] Briefly described, the present invention relates to methods and systems for providing real time account balances to users of mobile devices used for conducting financial transactions in a mobile environment. Such mobile devices include mobile telephones and/or wireless connected personal digital assistants (PDAs). The invention is particularly useful in a system that enables mobile device users to monitor payment sources and make payments using a wireless connected mobile device.

[0029] In accordance with aspects of the invention, the mobile devices communicate with a mobile financial transaction system (MFTS) that stores user information and transaction information. The MFTS is operative to obtain and provide updated account balances to mobile devices in response to predetermined conditions. Such updated accounts can include payment sources used to make payments as well as payment obligations such as bills, mortgages, etc.

[0030] Aspects of the invention are embodied in mobile devices, in software for mobile devices (e.g. in the form of computer-implemented methods), in a mobile financial transaction system (MFTS), in software for mobile financial transaction systems (e.g. in the form of computer-implemented methods), in systems that combine aspects of mobile devices and mobile financial transaction systems, and in software for such systems (e.g. in the form of software for mobile devices and related systems that effect computer-implemented methods).

[0031] One aspect of the invention relates to monitoring a plurality of financial accounts maintained at one or more financial service providers using a mobile device connected for communications with a wireless network. Such aspect involves: (i) providing a mobile financial transaction system (MFTS) coupled for wireless communications with a mobile device of a user, (ii) storing a cached account balance in the mobile device representative of the balance in a plurality of user accounts as of a particular date, (iii) causing the MFTS to communicate with at least one financial service provider to obtain updated account balance information for at least one account of the user, (iv) wirelessly communicating updated account balance information from the MFTS to a user's mobile device, and (v) displaying updated account balance information corresponding to the plurality of user accounts to the user via the mobile device, in response to receipt of the updated account balance information from the MFTS.

[0032] In a preferred embodiment, the MFTS is coupled for electronic communication with one or more financial service providers at which the user maintains one or more accounts. The financial service provider includes one or more of a bank, a credit card company, a debit card company, a stored value card provider, a credit union, a payment services company, a financial service provider. The MFTS includes a mobile financial transaction system (MFTS) database for storing user information and financial account information associated with a plurality of accounts associated with at least one financial service provider. The account information comprises payment source information. The account information displayed at the user's mobile device comprises summarized account information.

[0033] Another aspect of the invention relates to security for accessing information relating to a user's financial accounts in a mobile environment. Such aspect involves: (i) providing a user authentication function at the user's mobile device so as to authenticate a user to access the cached account balance information on the mobile device, (ii) providing a user identifier to the MFTS indicative of user login and connection for wireless communications, in response to user authentication at the mobile device, and (iii) initiating communication to the one or more financial service providers so as to request updated account balance information, in response to receipt of the user identifier at the MFTS. After the user activation and login, updated account balance information is automatically obtained for the plurality of financial accounts and provided in real time to the user's mobile device.

[0034] According to another aspect of the invention, a user's mobile device is connected to and in wireless communications with the MFTS, once the user's mobile device is connected and authenticated to do so. At the MFTS, in response to receipt of a mobile device connected signal, communication with a financial service provider is effected to obtain updated account balance information for one or more accounts of the user is initiated.

[0035] Another aspect of the invention relates to communications between a mobile device and a financial service provider facilitated by the MFTS. Such aspects involve: (i) receiving at the MFTS a user identifier corresponding to the user from the mobile device, (ii) in response to the user identifier, determining at least one financial service provider identifier corresponding to a financial service provider associated with the user, (iii) determining authentication information required to access account information in the financial service provider corresponding to the financial service provider identifier, (iv) providing authentication information to the financial service provider, and (v) receiving updated account balance information relating to at least one account maintained by the at least one financial service provider.

[0036] In one exemplary aspect, the user identifier is used to determine a plurality of financial service providers and receive updated account balances corresponding to a plurality of different accounts at the plurality of different financial service providers. The user identifier includes one of a mobile phone number, a MIN, a code, and/or a name. Related aspects involve wirelessly communicating updated account information to a user's mobile device upon receiving the updated account information from at least one